



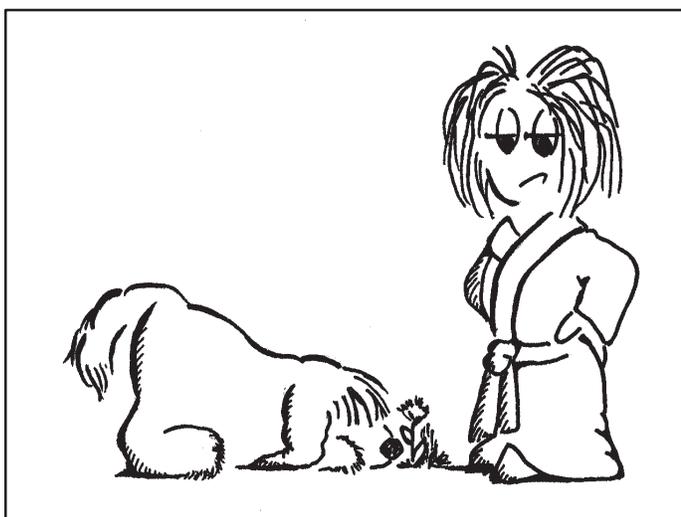
# Science on the Web

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## Activity 2

### Finding Science on the Web

**S**everal days later, Jane was asleep when the alarm went off and she hit the snooze button for seven more minutes of sleep. She found it was hard getting out of bed so early, but she had to get up to let the family's new puppy out and then play with her before getting ready for school. She was partly awake when she thought she felt the bed sway. It wasn't much, and she had just begun to think about earthquakes when it stopped. Was it an earthquake or just the wind? Well, she had to get up for school.



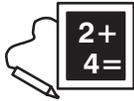
Sandy, the puppy, was thrilled to see her, maybe more than usual. Jane thought she was acting differently and remembered hearing her whimper early this morning. When she went outside, Sandy raced around sniffing at everything. Jane had to wait a long time until Sandy settled down. Jane thought this was interesting, because animals often act differently around the time of an earthquake.

No one in the house or on the bus seemed to know anything about Jane's earthquake. She wasn't imagining it! She thought she'd check out a few facts about earthquakes and find out if there had been one near enough to be felt in her area. She knew bigger ones could be felt farther away. Maybe this one was big and far away, or maybe it was a little one close by.

If there had been a big earthquake far away, the news would probably have reported it; you always heard about the big ones. So Jane decided that it would have to have been a small earthquake that not many people noticed. She wondered if the Web could tell her about recent earthquakes.

Mrs. Fine had recently taught the class about some exciting Web tools that allow "conferencing." This allows two people on the Web to type messages in real time (that is, with no delay) to each other, draw on the same "whiteboard" and point to the same drawing at the same time, even *talk* to each other over the computer microphones and speakers, and if each had a video camera, see each other while they conference.

Jane had planned to look up the earthquake information during her free period, but an e-mail from her uncle required her attention. She really needed to have a conversation with him. Jane decided to use conferencing to "talk" with Uncle Josh. She could look for earthquakes later.



## Real-Time Conversations with Conferencing\*

Although not installed on all systems, the ability of the Internet to serve as a connection for typing messages, sending voice, and even sending video signals back and forth in real time is not even a thing of the future. It's here now. The only limitation is the necessary equipment, and many schools and others have what they need. The technical expertise to set it all up may be the only obstacle.

Unfortunately, every platform runs a slightly different version of the software, and therefore the instructions below are not literally specific. And this product is not mature—it has bugs in it and doesn't always work the way it should. Nevertheless, a fearless user can learn to use it very quickly. (If it's not set up in your school, perhaps you should figure it out for your teacher!)

### Before you begin

You will need two things:

1. Netscape Conference software (can get from the Web and install as instructed).
2. Know your IP address and the IP address of the person you want to call. You can find your IP address from your teacher, or on a Macintosh under the Apple menu, **Control Panels—Network** or **—MacTCP**, on a Windows PC by checking the **Network** control panel (use "Network" for an Ethernet connection; use "Modem" for a dial-in connection), and in UNIX by typing **nslookup computer\_name**.

You might want to check with your school's technology coordinator or networking technician for exact instructions since your Internet connection may be undergoing a change from static to dynamic addressing. If you are using a dial-in connection, check with your Internet Service Provider for your IP address.

### Setting up a session

Both computers must be running the conferencing software for a communication to be established. Send e-mail to arrange a time. At the requisite time, then, both people begin Netscape Conference. The timing does not need to be precise. Whenever both computers are running Conferencing, you can begin.

One party then **dials** the other using the IP address. It is possible to use the computer name (not just the e-mail domain name) rather than the IP address, as long as the computer name is listed in the domain's name table. So Jane could find out her uncle is sitting at **smtp.stanford.edu** and use that address.

### Talking

When the first person dials, the second person then **answers** the call. Two windows will appear: one for the local and one for the remote caller. You should be able to hear each other talk through your speakers. If you can't, check your hardware (does your computer have a microphone and speakers built in? is it configured right?). Without the video feature, the remote window will have hash in place of a video picture of your caller.

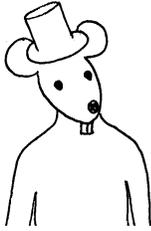
### Chatting

A "chat" window lets you type a message that is sent either when you press **enter** or type **<control> enter**. The person at the other end can interrupt with their own message. It's a lot like a phone conversation, only you have to type.

\* You may wish to skip this section for now. Just jump to "More Browsing". But try these features sometime.



Note that you may have to delete your conversation (using the trash icon or creating a “new” page and then canceling) or else the next conversation you start will have this text still in it.



**Heads Up!**

*When typing messages for e-mail or chat, save the use of upper case letters for emphasis (such as when you are **REALLY EXCITED** about something). You can show that a comment is intended to be funny with the symbols  
:-)*

*(turn the page sideways to view).*

## Drawing

The “Whiteboard” is a paint-type window that lets you draw and point to things while the other person watches and does the same.

## Collaborative browsing

This feature allows both people to see the same Web page at the same time. You might like to show someone something you found and talk about aspects of it together.

## File transfer

This feature will allow you to send a file to the person with whom you are conferencing. This is not the only way to send a file, but it is a handy tool in communicating.

## Video conferencing

You will need at least one video camera to use this feature. With one camera, you can send video signals, but you won’t receive signals from someone without a camera.



### Questions

2-1. If you were writing a scientific paper with a friend in another state, how might you use the conferencing tools to help you?



## More Browsing

## Searches for subjects

Search engines all work in different ways, and even though they are looking at what is on the Web, they return different answers. You will find that one or another works better for what you want. **Mamma** searches using other search engines.

In Netscape Navigator, type in the URL in the “Location” box.

<http://www.mamma.com>

Some search engines take two words and search for them together; others ask, after the first word search to “qualify” a search with a second word. Some require you to specify on the search that you have two words that need to be sought together. To qualify this kind of search, you need to quote the string. This gives you a more targeted list. If you quote them separately, or list them without quotes, you’ll get hits on each word. Know your browser: learn how to ask for to get what you want.

Search for *earthquake*; how many “hits” did you get?

Try using another search engine to find *earthquakes* and compare the finds.

Run a new search for *USGS* and *earthquake*. Does this limit the hits?

“Power Searching for Anyone” provides tables of search engine syntax.

<http://searchenginewatch.internet.com/facts/powersearch.html>

**Heads Up!**



*Occasionally you will get a pop-up Submit Warning that says “Any information you submit is insecure and could be observed by a third party while in transit.”*

*The largest concern here is if you are submitting sensitive material such as your credit card number. Generally searches do not need to be secure, so you can select “Continue Submittal.”*



### Questions

2–2. Do you find that one search string was better than another?

2–3. Search for a subject that you are interested in using several search engines. Which is better for what you want?



## Local Earthquakes

One of the hits you might have found under *earthquakes* is the U.S. Geological Survey. Use their site to find today’s earthquakes in California.

<http://quake.wr.usgs.gov>

[Latest Quake Information  
California and Nevada](#)

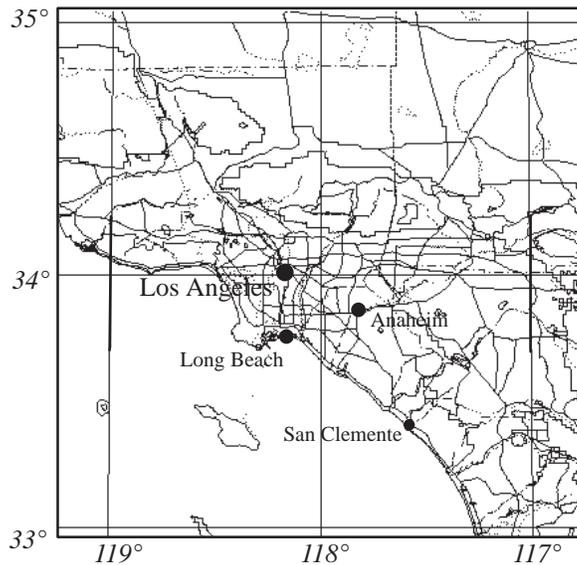


You will want to check the exact location of some of the quakes, so in the text below the map, click on the list of [all earthquakes](#).



## Questions

- 2-4. Find the strongest quake in the last few days in California.
- 2-5. Check the activity every day for a week. Do the quakes appear randomly or are they clustered throughout the state?
- 2-6. Jane's latitude and longitude are approximately  $34^{\circ}\text{N}$ ,  $118^{\circ}\text{W}$ . Was there a small earthquake near her home today?



We'll look at earthquakes in more detail in Activity 7.